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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,067	01/06/2006	David Wiekhorst	2316.1910USWO	2566

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EXAMINER
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NGUYEN, CHAUN

ART UNIT	PAPER NUMBER
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2831

MAIL DATE	DELIVERY MODE
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07/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/529,067	<b>Applicant(s)</b> WIEKHORST ET AL.	
	<b>Examiner</b> Chau N. Nguyen	<b>Art Unit</b> 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 25 and 31-62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25 is/are allowed.
- 6) ☒ Claim(s) 31,33-36,38,42,43,45,46,48-51 and 53-62 is/are rejected.
- 7) ☒ Claim(s) 32,37,39-41,44,47 and 52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/29/08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 31, 33-36, 38, 42, 45, 46, 48-51, and 53-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bleich et al. (5,576,515) in view of Clouet et al. (5,922,155).

Bleich et al. discloses a telecommunications cable comprising a jacket (26), a first wire pair (24) positioned inside the jacket, the first wire pair including a first wire and a second wire, the first and second wires being twisted about one another, a second wire pair (23) positioned inside the jacket, the second wire pair including a third wire and a fourth wire, the third and fourth wires being twisted about one another, the first, second, third and fourth wires each including a conductor and an insulator surrounding the conductor.

Bleich et al. does not disclose the insulator each defining a plurality of channels having lengths run generally along the length of the conductors, the insulator channels containing gas and the insulator channels of the first and second wires defining a larger transverse cross-sectional area than the insulator channels of the third and fourth wires. Clouet et al. (Figures 3 and 5) discloses wires each comprising a conductor and an insulator surrounding the conductor, wherein the wires can be used to form twisted pair cable (col. 7, lines 24-27), and wherein the insulators each defining a plurality of channels having length run generally along the length of the conductors, the insulator channels containing gas, and the insulator channels of one of the wires (Figure 3) having a larger transverse cross-sectional area than the insulator channels of the other of the wires (Figure 5). It would have been obvious to one skilled in the art to provide insulator channels as

taught by Clouet et al. for the first wire pair and the second wire pair of Bleich et al. respectively to reduce the dielectric constant of the insulator around the conductor so that the modified cable can be used at relative high frequency applications.

The modified cable of Bleich et al. also discloses that at least some of the insulator channels are surrounded on all sides by the insulators (re claims 33 and 48), the first wire pair has a slower transmission speed than the second wire pair (re claims 34 and 49), the insulators include a polyolefin material (re claims 35 and 50), the insulators include a fluoropolymer material (re claims 36 and 51), the gas within the channels includes air (re claims 38 and 53), the channels contain only air (re claims 45, 46, 55, 56), and at least one of the channels is trapezoidal or arched (re claim 58). Re claims 42 and 54, it would have been obvious to one skilled in the art to twist the first and second wire pairs of Bleich et al. together to form a core since twisting a plurality of twisted pairs together to form a core is well-known in the art. Re claim 57, it has been held that during examination, the patentability of a product-by-process claim is determined by the novelty and nonobviousness of the claimed product itself without consideration of the process for making it which is recited in the claim. *In re Thorpe*, 227 USPQ 964. Re claims 59-62, the modified cable of Bleich et al. would pass the National Fire

Prevention Association test 255, 259 or 262, and substantially no water invades the channels since it comprises structure and material as claimed.

4. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bleich et al. in view of Clouet et al. as applied to claim 31 above, and further in view of Tessier et al. (5,132,488).

Claim 43 additionally recites the jacket including a plurality of channels. Tessier et al. discloses a cable comprising a jacket including a plurality of channels. It would have been obvious to one skilled in the art to modify the jacket of Bleich et al. to have a plurality of channels as taught by Tessier et al. to separate the wire pairs to minimize the cross-talk among the pairs.

***Allowable Subject Matter***

5. Claims 32, 37, 39-41, 44, 47 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claim 25 is allowed.

7. The following is a statement of reasons for the indication of allowable subject matter: Claims 25, 32, 37, 39-41, 47 and 52 are allowed in view of the

Terminal Disclaimer filed on 5/29/2008, which is proper and has been recorded.

Re claim 44, the prior art of record does not teach or suggest a telecommunications cable comprising all the features as recited in the claims and in combination with the difference in transverse cross-sectional area being selected to reduce delay skew between the first and second wire pairs as compared to if the insulator channels corresponding to the first and second wires defined the same cross-sectional area as the insulator channels corresponding to the third and fourth wires.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 31 and 46 have been considered but are moot in view of the new ground(s) of rejection.

### ***Summary***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the

advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutiérrez can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chau N Nguyen/

Chau N Nguyen  
Primary Examiner  
Art Unit 2831